

# 7717/6CY5

## Sharp-Cutoff Tetrode

7-PIN MINIATURE TYPE  
For Mobile-Communications Equipment

### GENERAL DATA

#### Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC) . . . . .	6.3	<sup>+1.2</sup> <sub>-0.3</sub>	volts
Current at heater volts = 6.3 . . . . .	0.200		amp
Peak heater-cathode voltage:			
Heater negative with			
respect to cathode. . . . .	100	max.	volts
Heater positive with			
respect to cathode. . . . .	100 <sup>a</sup>	max.	volts

Direct Interelectrode Capacitances:<sup>b</sup>

Grid No.1 to plate. . . . .	0.03	max.	μμf
Grid No.1 to cathode & internal shield,			
grid No.2, and heater . . . . .	4.4		μμf
Plate to cathode & internal shield,			
grid No.2, and heater . . . . .	2.74		μμf

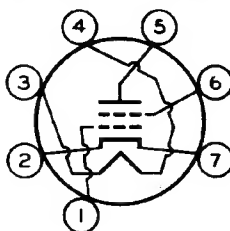
Characteristics, Class A<sub>1</sub> Amplifier:

Plate Voltage . . . . .	125	volts
Grid-No.2 Voltage . . . . .	80	volts
Grid-No.1 Voltage . . . . .	-1	volt
Plate Resistance (Approx.) . . . . .	0.125	megohm
Transconductance. . . . .	8000	μmhos
Plate Current . . . . .	10	ma
Grid-No.2 Current . . . . .	1.4	ma
Grid-No.1 Voltage (Approx.) for		
transconductance (μmhos) = 100. . . . .	-5	volts

#### Mechanical:

Operating Position. . . . .	Any
Type of Cathode . . . . .	Coated Unipotential
Maximum Overall Length. . . . .	2-1/8"
Maximum Seated Length . . . . .	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip). . . . .	1-1/2" ± 3/32"
Diameter. . . . .	0.650" to 0.750"
Dimensional Outline . . . . .	See <i>General Section</i>
Bulb. . . . .	T5-1/2
Base. . . . .	Small-Button Miniature 7-Pin (JEDEC No.E7-1)
Basing Designation for BOTTOM VIEW. . . . .	7EW

Pin 1 - Grid No.1  
Pin 2 - Cathode,  
          Internal  
          Shield  
Pin 3 - Heater  
Pin 4 - Heater



Pin 5 - Plate  
Pin 6 - Grid No.2  
Pin 7 - Cathode,  
          Internal  
          Shield



RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA  
5-62

# 7717/6CY5

## AMPLIFIER — Class A<sub>1</sub>

### Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE . . . . . 180 max. volts  
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE. . . 180 max. volts  
GRID-No.2 VOLTAGE . . . . . See *Grid-No.2 Input Rating Chart*  
at front of Receiving Tube Section  
GRID-No.1 (CONTROL-GRID) VOLTAGE:  
Positive-bias value . . . . . 0 max. volts  
CATHODE CURRENT . . . . . 20 max. ma  
GRID-No.2 INPUT:  
For grid-No.2 voltages up  
to 90 volts . . . . . 0.5 max. watt  
For grid-No.2 voltages be-  
tween 90 and 180 volts. . See *Grid-No.2 Input Rating Chart*  
at front of Receiving Tube Section  
PLATE DISSIPATION . . . . . 2 max. watts

### Maximum Circuit Values:

Grid-No.1-Circuit Resistance. . . . . 0.5 max. megohm

## SPECIAL RATINGS & PERFORMANCE DATA

### Heater-Cycling:

Cycles of Intermittent Operation. . . . . 2000 min. cycles

This test is performed on a sample lot of tubes from each production run under the following conditions: heater volts = 7.5 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.

### Transconductance at Reduced Heater Voltage:

Average Value . . . . . 5900  $\mu$ mos

With heater volts = 5.0, plate volts = 125, grid-No.2 volts = 80, grid-No.1 volts = -1.

<sup>a</sup> The dc component must not exceed 50 volts.

<sup>b</sup> With external shield JEDEC No.316 connected to cathode.

